

ENDANGERED SPECIES

Project title: Documenting the Presence and Distribution of Lynx in Yellowstone National Park

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Objective: Document the presence and distribution of lynx in Yellowstone National Park.

Findings: Research is continuing. Historically, lynx (*Lynx canadensis*) in the conterminous U.S. were reduced by persecution and habitat destruction, prompting their listing as a threatened species by the U.S. Fish and Wildlife Service during 2000. Despite evidence that lynx were and are still found in Yellowstone National Park (YNP), no rigorous effort has been made to document their presence. In 2001, we began a 3-year survey in YNP to collect baseline information necessary to assess the status of the lynx. We used a GIS-based analysis of YNP topography to identify prime lynx habitats. From 2001–2003, we are conducting intensive surveys in prime habitats using 1) ground-based and aircraft-based snow tracking during winter, and 2) hair snares to obtain DNA samples in the summer. During winter 2000–2001 and 2001–2002, we found one possible and two probable lynx tracks in YNP. During summer 2001, we installed a 32-transect hair-snare grid in east central YNP and obtained 155 hair samples (results pending laboratory analysis). We concluded that ground-based snow tracking, air-based snow tracking, and hair-snare surveys are highly complementary and provide more robust conclusions about the presence or absence of a species than if just one of these techniques were used alone.

Project title: Application of Stable Isotopes and Trace Elements to Understanding the Potential

Effects of Long-term Changes in Food Resources to Yellowstone Grizzly Bear Productivity

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Objective: Estimate the nutritional importance of spawning cutthroat trout in Yellowstone Lake to Yellowstone grizzly bears. Estimate the nutritional importance of white-bark pine nuts to Yellowstone grizzly bears.

Findings: Study is currently underway, but in the very early stages. Results are not currently available.